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ABSTRACT

The demand for reform and improved schools are two constant issues in American education. Despite periodic reform efforts, most schools have resisted systemic reform. The Effective Schools Movement was a reaction to assertions in the 1960s that schools had little influence on a child's education. Effective Schools involve all relevant stakeholders in striving for continuous educational improvement. Systemic reform, organizational theory and development, outcomes-based assessment, and participatory management are all characteristics of Effective Schools. Effective Schools training can also provide teachers and administrators with the skills to create change. The Effective Schools process involves several steps; each of which is described in this paper. They are: explore the research and the process, secure district commitment and resources, form improvement teams and develop team skills, affirm the mission and belief system, gather and analyze data on school characteristics and student outcomes, develop school and student status reports, identify improvement objectives, select strategies and develop a plan, examine curriculum and instruction strategies, implement plan and monitor results, and refine and renew efforts. The Effective Schools process provides a framework for ongoing school change. (Contains 77 references.) (JPT)

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# THE EFFECTIVE SCHOOLS PROCESS FOR CONTINUOUS SCHOOL IMPROVEMENT

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The Effective Schools Process for Continuous School Improvement

There are at least two constants in the milieu of American education: (1) the demand for reform and (2) the perception that our schools are not as effective as they could be in educating all students to achieve their full potential. Callahan (1962) and Tyack (1974) are among the scholars whose works reveal the existence and effects of these two persistent elements. Taken together they go far toward explaining the unceasing press for change in American education, a press which became even heavier following the publication of A Nation at Risk (National Commission on Excellence in Education, 1983). Whether or not the public schools are responsible for all of the real or imagined ills of the United States is at least debatable, but the pervasive view that our schools must become more effective and efficient if the nation is to prosper has clearly driven national and state policies concerning public education during the past decade.

Despite the continuing press for reform, American schools have been remarkably resistant to systemic change. Although innovations appear and disappear with regularity, few persist long enough to have any lasting effect on the educational system. In truth, many of them are basically reincarnations of previous innovations dressed in new garb and given "new and improved" labels. Tyler (1987) has observed that it takes 5-7 years for most educational innovations to show results. By this yardstick, few educational innovations last long enough to determine whether or not they are effective. The great majority of American schools continue to sort, screen, and select students, a practice that evolved in the 19th century and is still present today in most schools. A teacher from the 1930s or 1940s would feel at home in most classrooms today.

Conversations with teachers and principals about the quality of their professional life suggest a number of reasons for their resistance to change. Some continue to look for the "magic bullet" that will solve all of their problems in one fell swoop; some value the status quo and see no need for fundamental change; still others have simply given up. A

major obstacle to reform, however, appears to be a lack of the knowledge and skills needed to achieve lasting change in a school's culture, i.e., the accepted and customary ways that the work of the institution is carried out.

## The Effective Schools Movement

Publication of Equality of Educational Opportunity (Coleman, et al., 1966) created the impression that schools make little, if any, difference in the learning of children and that the student's family, peers and the general social milieu exert much greater effect on learning than does the school. The Effective Schools movement stems from the work of a number of researchers who were unwilling to accept the notion that schools make no difference. Their efforts to identify and define distinguishing characteristics of effective schools produced an extensive body of literature as well as applications of this knowledge in practice. The work of scholars such as Edmonds (1979), Brookover, Beady, Flood, Schweitzer, & Wisenbaker (1979), Rutter, Maughan, Mortimore, Ouston, & Smith (1979), Hallinger & Murphy (1985, 1986, 1987), Lezotte & Bancroft (1985), and Stringfield & Teddlie (1988) established that schools can make a difference in the lives and learning of children. Their efforts also led to specification of the "correlates of effective schools" -- descriptions of the characteristics and attributes typically found in schools that have been successful in achieving the goal of learning for all children.

The correlates can be characterized as a list of ingredients that are required for school effectiveness, but they are not a recipe. The fact that several characteristics tend to appear together does not mean that any one or combination of them causes a school to be effective. More importantly, describing the correlates does not tell one how to achieve school effectiveness. Consequently, a great deal of effort has been devoted to developing processes, procedures, and strategies that can be used to help schools become more effective. The research and development work of the National Center for Effective Schools (NCES) has been directed to this end. The Center does not claim to have a fool-

proof recipe that will guarantee success in achieving school effectiveness. However, schools seeking to become effective have found the Effective Schools school improvement process (ES/SIP) developed by NCES to be very helpful.

This school improvement process seeks to empower local school communities by helping them develop the knowledge and skills needed to successfully pursue systemic reform. The Effective Schools process envisions a learning community in which all relevant stakeholders -- teachers, administrators, staff members, parents, community members, and students -- are actively involved in creating a culture which strives for continuous improvement in all areas of the school community. The Effective Schools process has the following attributes:

1. It is a process that fosters systemic reform by helping schools and school districts establish and maintain a culture in which continuous improvement is the norm.
2. It adds knowledge drawn from organizational theory, organizational development, and the change process to the research base on school and teacher effectiveness.
3. It focuses on student outcomes with the expectation that all students can and will learn challenging subject matter and master the skills and knowledge needed for success in life.
4. It is guided by a participatory management approach at the district, school, and classroom level that strives for continuous improvement so that problems are dealt with as they arise; change is viewed as a natural condition of life in schools.

The Effective Schools process does not specify a particular organizational arrangement, curriculum, or set of "approved" instructional practices. Rather, it seeks to build capacity at the school and district level to identify impediments to school effectiveness and to select from the broad array available those organizational and

instructional arrangements that appear most promising in view of the particular circumstances found in each school. The process does not impose solutions; it empowers local school communities to deal effectively with the specific problems and needs with which they are confronted.

The Effective Schools process as developed by NCES is a framework for change that can support successful implementation of specific organizational and instructional arrangements. A major impediment to change in schools lies in the fact that very few teachers and principals have the knowledge or the skills needed to cope with the stresses created by change, for example, achieving agreement on and commitment to a vision and mission, resolving conflicts, or leading a team effort. Training in the Effective Schools process can equip them with the requisite knowledge and skills to manage the changes needed to make their schools more effective. Charles Melvin (1991), superintendent of one of three Wisconsin school districts recognized recently as exemplary, described his district's success as the result of a logical progression of efforts to put into place what research tells us works in schools. Starting with the research on effective schools and the correlates of effective schools, his district used the Effective Schools process to create the capacity and readiness to incorporate other specific strategies such as Outcome-Based Education (OBE) and Total Quality Management (TQM) to achieve greater effectiveness.

## The Effective Schools Improvement Process

The Effective Schools improvement process is summarized in this section. Detailed recommendations concerning the Effective Schools process are available in The Handbook for Implementing School Improvement (Holcomb, 1991a) and through the NCES staff development program, School-Based Instructional Leadership (SBIL) (Holcomb, 1991b). The activities in which school leadership teams engage include:

1. Exploring the research and process
2. Securing district commitment and resources
3. Forming improvement teams and developing team skills
4. Affirming the mission and belief system
5. Gathering and analyzing data on school characteristics and student outcomes

6. Developing school and student status report
7. Identifying data-based, mission-oriented improvement objectives
8. Selecting strategies and developing a plan for implementation and monitoring
9. Examining effective curriculum and instructional strategies related to improvement objectives
10. Implementing plan and monitoring results
11. Refining and renewing improvement efforts

As each of these school improvement activities is described, linkages are made with related aspects of OBE and TQM. These connections are based on observation of OBE and TQM in practice at school sites which may or may not be consistent with the recommendations of their advocates.

The intent is not to critique other strategies, but to identify points at which they support each other, and to emphasize that they do not contradict each other. The goal is to address the prevailing problem of fragmentation by illustrating how educators can use a familiar framework for change to accommodate new mandates and approaches in a coherent manner.*

Explore the Research and Process

The first step undertaken by a school district considering implementation of school improvement based on the Effective Schools research is to develop a common knowledge base. This knowledge base should include a firm grounding in the original Effective Schools studies (Austin, 1978; Averch, Carroll, Donaldson, Kiesling, & Pincus, 1972; Brookover et al., 1979; Edmonds, 1979; Mayeske, et al., 1972; Weber, 1971), awareness of the continued research on school effectiveness (Levine & Lezotte, 1990), and an overview of the steps involved in the improvement process itself. When sharing the findings of Effective Schools studies, leaders must emphasize that the criterion that identified certain schools as effective was their success in achieving specific student learning outcomes for all subgroups of the student population. The distinction between correlation and causation should be drawn prior to discussion of the correlates of

* We recommend that readers consult "It's Time to Take a Close Look at Outcome-Based Education," in Outcomes, January 1991, for a description of Bill Spady's current thinking on Transformational OBE.

effective schools (*clear and focused mission* [Brookover et al., 1979; Clancy, 1982; Murphy, Weil, Hallinger & Mitman, 1982; Sizemore, Brossard, & Harrigan, 1983; Taylor, 1984], *strong instructional leadership* [Brookover & Lezotte, 1979; Doll, 1969; Glenn, 1981; Murphy, 1989; Weber, 1971], *safe and orderly environment* [Edmonds, 1982; Borger, Lo, Oh, & Walberg, 1985; Sizemore, Brossard, & Harrigan, 1983; Taylor, 1984; Wayson, 1988], *opportunity to learn and time on task* [Blum, 1984; Brookover & Lezotte, 1979; McCormack-Larkin, & Kritek, 1982; Sizemore et al., 1983; Stringfield, Teddlie, & Suarez, 1986; Teddlie & Stringfield, 1989; Teddlie & Virgillo, 1988], *high expectations for student success* [Brookover & Lezotte, 1979; Crawford & Kimball, 1988; Jackson, Logsdon, & Taylor, 1983; Levine & Stark, 1981; Sizemore et al., 1983; Steller, 1988; Stringfield et al., 1986; Taylor, 1984; Teddlie & Stringfield, 1989; Weber, 1971], *frequent monitoring of student progress* [Borger et al., 1985; Ferguson, 1984; McCormack-Larkin & Kritek, 1982], and *positive home-school relations* [Ascher & Flaxman, 1987; Henderson, 1988; Walberg, 1984]). Participants should be made aware of the large number of research studies done in varying contexts nationally and internationally that have produced similar findings and substantiate the importance of these characteristics.

Audiences for this overview and orientation should include district-level administrators, building-level administrators, representatives of teacher groups, board members, parents, and community/business representatives. It is this initial group who will determine whether to proceed further. If the decision is affirmative, plans must be made to repeat this initial orientation for all members of administration and staff, and to make such training available to members of the public who wish to attend. Over the long term, this step must be repeated for new staff and administrators who join the effort. This exploration of the research and process is the first of several steps that rely heavily upon well-planned and skillfully delivered staff development opportunities that respond

to the needs of adult learners and provide both challenge and reassurance (Stedman, 1987; Wayson, 1988).

Relationship to OBE and TQM. -- In districts where initial decisions have already been made to integrate OBE and/or total quality improvement with the overall school improvement effort, these initial orientations would also include an awareness of the common beliefs held by these approaches, and the points at which steps in each process intersect with the Effective Schools improvement framework (see Figure 1).

Secure District Commitment and Resources.

The school improvement process advocated by the NCES is a site-based process which is dependent for success upon provision of adequate support by the school district. There are two ways in which the district must demonstrate its commitment to the concept of continuous improvement. The first is through policy, made explicit by the board of education's adoption of a statement declaring that continuous improvement is the expected norm in the district and that district schools will be implementing an improvement process. While strongly stating this expectation, the policy statement itself must be conceptual in nature, resisting the temptation to outline detailed requirements (Murphy & Waynant, 1990; Pollack, 1988).

The true test of district commitment in the eyes of those to whom the task itself will fall is not what is printed on paper, but what is funded. The primary costs of school improvement are in providing staff development opportunities and time for staff members to work together. They are not excessive. However, it is essential that funds be designated in the budget to clearly indicate the importance of this endeavor (Eubanks & Levine, 1987; Saxl, Kaplan, Robinson, & Springer, 1989; Stevens, 1988). Funds for staff development should not be allocated only for district-wide goals and programs. A significant percentage of these funds should be designated for use at the school site

Figure 1 -- A Comparison of Basic Beliefs and Implementation Processes of Outcome-Based Education, Effective Schools, and Total Quality Management

**BASIC BELIEFS**

| Outcome-Based Education | Effective Schools Process | Total Quality Management |
|---|---|---|
| | There are schools that accomplish desired student outcomes regardless of factors that were used to predict school failure. | Humans want to be effective. |
| All students can learn and succeed given the time and appropriate coaching | All children can learn. | Continuous improvement is necessary for all for survival. |
| | Schools must provide quality educational programs. (What do we want students to know and be able to do upon completion of their K-12 schooling?) | Every aspect of the organization is understood through its contribution to quality.<br>Focus on needs of consumer. |
| | Schools must ensure equity in student achievement of essential skills. (Which students demonstrate that they know and are able to perform the desired outcomes?) | |
| Success breeds success<br>Schools control the conditions of success | Schools must strengthen and maintain organizational characteristics correlated with student success: | System must take responsibility to control conditions for success. |
| Clarity of focus | Clear and focused mission | Constancy of purpose |
| Expanded opportunities for teacher leadership | Strong instructional leadership | Stability in top management |
| | Safe and orderly environment | Trust, safety, risk-taking |



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## BASIC BELIEFS - Continued

| Outcome-Based Education | Effective Schools Process | Total Quality Management |
|---|---|---|
| | Opportunity to learn and time on task | |
| High expectations for all to reach high standards | High expectations for student success | |
| Consistent and continuous assessment of progress toward stated learning outcomes | Frequent monitoring of student progress | Data-based decisions |
| | Positive home-school relations | |
| Leadership opportunities for teachers | School improvement must be undertaken at the site level and involve all stakeholders. These efforts must be supported by district and state. | A new philosophy of cooperation Teamwork and long-term planning |

## IMPLEMENTATION PROCESSES

| Outcome-Based Education | Effective Schools Process | Total Quality Management |
|---|---|---|
| | Develop knowledge base of the research and process | |
| | Secure district commitment and resources | |
| Involve teachers and administrators in committees | Form improvement teams and develop teamwork skills | Project teams |
| Develop district mission statement and subject area mission statements | Affirm mission and belief system | 1. Determine the problem<br>1.1 Define problem from customer's perspective<br>1.2 Focus the problem<br>1.3 Establish the project mission |
| | Gather and analyze data on school characteristics and student outcomes | |
| | Develop school status report | |
| | Identify data-enhanced, mission-oriented improvement objectives | |
| | Examine effective strategies and compare to current practices | 2. Observe current situations<br>2.1 Examine the process<br>2.2 Investigate key factors of problems |



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## IMPLEMENTATION PROCESSES - Continued

| Outcome-Based Education | Effective Schools Process | Total Quality Management |
|---|---|---|
| | | 3. Analyze root causes<br>3.1 Develop theories<br>3.2 Verify with data |
| Develop K-12 curriculum independent of textbooks and materials | Select strategies to implement | 4. Develop the improvement<br>4.1 Generate alternatives<br>4.2 Select improvements to be made<br>4.3 Plan the improvements |
| Define desired outcomes<br>Design down:<br>Exit<br>Program<br>Course<br>Unit<br>Lesson<br>10-20 unit outcomes per subject per grade level for all to master; extended curriculum for faster learners<br>Students expected to master an outcome at 80% level (mastery learning)<br>May develop CRT's; other forms of assessment encouraged | | |
| | Develop action plan for implementing and monitoring | |



National Center for Effective Schools, 1992

## IMPLEMENTATION PROCESSES - Continued

| Outcome-Based Education | Effective Schools Process | Total Quality Management |
|---|---|---|
| Audit is based on implementation criteria | Implement plan<br>Monitor results<br>Celebrate successes | 5. Verify the results<br>5.1 Implement improvement at a pilot level<br>5.2 Study the process<br>5.3 Modify the implementation plan |
| | Refine and renew efforts based on results | 6. Standardize improvements<br>6.1 Establish control items and methods<br>6.2 Standardize key items<br>6.3 Implement at full scale<br>6.4 Modify and ensure effectiveness of improvements |
| | | 7. Conclude the project<br>7.1 Check process and results; describe what was learned<br>7.2 Describe future plans |



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because the site-based decisions that guide individual school improvement efforts require different sets of new skills (Crawford & Kimball, 1988; Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988).

It also is important at this juncture for administrators and staff members throughout the district to be made aware that traditional roles and relationships change when site-based school improvement occurs. Teachers are both challenged and empowered to take more responsible leadership roles (Henderson & Lezotte, 1988; Purkey & Smith, 1983; Sudlow, 1990). Principals are called upon to develop collaborative skills for shared decision-making (Borger et al, 1985; Kopple, 1985; Levine & Stark, 1982; Mortimore et al., 1988). Central office staff must be transformed from monitors of compliance to providers of information and technical assistance (Murphy & Waynant, 1990; Shoemaker, 1986). The mental focus must shift from one in which people in schools are viewed as working for the district office, to one in which district office personnel view their jobs as facilitating the work that takes place in schools (Waterman, 1988).

In large districts, this step often includes forming a district-level steering committee. This group is expected to set general guidelines for school-based leadership teams, respond to questions that arise on an ongoing basis, and coordinate and communicate between multiple efforts.

Relationship to OBE and TQM. -- In districts integrating OBE, costs are likely to be greater due to the extensive involvement of staff members on Curriculum Coordinating Councils and Subject Area Committees, as well as building leadership teams. The addition of techniques from TQM will also expand the need for resources for staff development and provision of needed technology.

Form Teams and Develop Teamwork Skills

Since continuous school improvement focuses on the individual building as the unit of change, each school will need its own leadership team (Purkey & Smith, 1983).

The composition and selection process for this team is a crucial step in developing trust and ownership within the school (Henderson & Lezotte, 1988). All groups of staff and faculty (grade levels or departments and support staff), as well as students and parents, need to be aware of and involved in this selection process (Kopple, 1985).

Because teaching has traditionally been an isolated profession, working together as a team will be a new experience for most improvement team members. Success in team-building is dependent upon training in conflict resolution, decision-making techniques, and communication skills (Jackson, 1982; Kilmann, 1989; Sizemore et al., 1983; Sudlow, 1990; Taylor, 1984). These relationship skills are as important as the technical skills related to collecting and analyzing data, defining clear objectives, and developing action plans, which must also be taught throughout the implementation of the process. The importance and nature of staff development thus emerges again at this step of the process.

Relationship to OBE and TQM. -- OBE involves staff members primarily in identification of student outcomes through subject area committees. Less attention is given to involvement of students and community, although their importance is acknowledged. The TQM approach based on W. Edward Deming's principles involves formation of project teams. These management groups may perform many of the same functions described in the remaining steps.

Affirm Mission and Belief System

In the early years of the Effective Schools movement, discussion of the need for a school and/or district mission statement was often seen as innovative rhetoric. However, given the fact that the themes of mission and vision recur repeatedly in popular literature and are closely related to leadership in many settings, there is little argument about the importance of such a statement at both the district and school levels. Many schools and districts concerned with improvement have developed a mission statement (Deal & Peterson, 1991; Peters & Austin, 1985; Peters & Waterman, 1982). Where no mission

statement has been developed, early involvement of all staff and stakeholders at the building level is essential -- as much for the process of sharing dialogue about underlying beliefs related to schools and schooling as for the formal statement that is developed (Henderson & Lezotte, 1988).

Where a formal mission statement exists, review of its development and analysis of its content is essential. The challenge of bonding isolated practitioners into an organization with a common, underlying and overriding sense of purpose is greater than at first conceived (Kilmann, 1989; Taylor, 1984), particularly when that purpose is to teach all children equally well. The school staff's readiness to look at school routines and measure them against its stated mission is an important indicator of the level of success or difficulty likely to be encountered in ensuing steps.

Relationship to OBE. -- Advocates of OBE stress the need for a district mission statement, and underscore the beliefs that all students can learn (given time and appropriate coaching), and that schools control the conditions for success. These premises are consistent with the "all children will learn" mission of school improvement. A divergence occurs when Effective Schools proponents focus next on school-level mission and beliefs, in contrast to the outcome-based decision-making step of developing subject area missions. This illustrates the primary difference between OBE and ES/SIP -- a curriculum approach versus an organizational approach. The steps taken to implement OBE are thus discussed in more detail as aligned with the school improvement step of examining and selecting appropriate instructional and curriculum development strategies.

Relationship to TQM. -- In the seven-step improvement process developed in recent years as an outgrowth of Deming's emphasis on TQM, the first step is to "Determine the problem." Substeps include defining the problem from the customer's perspective, focusing the problem, and establishing the project mission. Problem identification is actually more analogous to the school improvement step of identifying specific improvement objectives (described later). It is important to note that defining a

mission is part of all three processes. In TQM, it is based on the principle of constancy of purpose.

Gather and Analyze Data on School Characteristics and Student Outcomes

By this time, school improvement teams are setting forth the course of action to be taken at their site (Lezotte & Bancroft, 1985). Early decisions about what types of data to gather and analyze should reflect the stated and agreed-upon mission (Taylor, 1984). The question to be addressed by the team is "If we say our mission is _____, what information do we need to demonstrate whether we are accomplishing it?" As teams explore the types of student performance data and archival data available, they often discover that there is much more information available than they were aware of, or know how to use to guide their decision-making.

At this point, the school improvement team lightens its load by designating task forces to gather and analyze the different types of data it has identified (Sudlow, 1990). Each task force will be led by an improvement team member, but will include other school staff members as well as students and parents where appropriate. A common pattern is for one task force to look at standardized achievement data, another to explore archival data such as attendance, tardiness, dropout rates, and discipline, and a third to ascertain the presence and strength of the characteristics associated with schools found to be effective.

This third task is most frequently accomplished through the use of surveys, of which many are available that have been refined based on extensive use (Gottfredson, Hybl, Gottfredson, & Castaneda, 1986; Henderson & Lezotte, 1988; McGrail, Wilson, Buttram, & Rossman, 1987; Schmuck & Runkel, 1985). Task forces often use surveys to gather perceptual data. The temptation to rate the responses as accurate or inaccurate should be avoided. Survey results should be regarded as reflecting the reality perceived by the respondents. Depending on whether the perceptions are incorrect or correct, they will be addressed either by changing current practice or by clarifying and more accurately

communicating existing practice (Brousseau, 1988; Gauthier, Pecheone, & Shoemaker, 1985; Gottfredson, 1986).

Analysis of the data will include common statistical treatments. Consistent with a definition of school effectiveness that includes equity of student success regardless of race, socioeconomic status, or gender, school improvement efforts must include data disaggregation. In essence, disaggregation involves looking at the achievement of each subgroup of the student population to determine whether the proportion of students acquiring essential competencies is comparable (Henderson & Lezotte, 1988).

Relationship to OBE. -- Proponents of OBE refer to student achievement data as they raise issues of curricular alignment and assessment after curriculum revision. The need to monitor student progress is acknowledged (Spady, 1989), and claims of improved student performance (Alessi, Rowe, & Mamary, 1985) imply that data concerning achievement is collected and analyzed. However, references to the use of such data to guide decisions about whether to implement OBE, or which subject areas should receive first attention, are lacking. The use of questionnaires and personal interviews with staff has been mentioned (Ervay, Christensen, & Edwards, 1988) as a means of determining the "real" or taught curriculum, but parents, students, and other stakeholders are not involved to the extent recommended in the school improvement process.

Relationship to TQM. -- The use of statistical tools from TQM (Scholtes, 1988; Walton, 1986) can strengthen the school improvement process. Particularly helpful at this stage are the histogram and run chart. For example, the histogram can display disaggregated student achievement data and results of surveys conducted with stakeholder groups. Data collected over a period of time, such as attendance or discipline referrals, can be portrayed in a run chart to look for trends. Pareto charts can be used to focus on the most frequent problems or factors related to an area of concern and flow charts can illustrate barriers in the system itself that impede progress.

Develop School Status Report

Most school improvement teams compile a status report that includes graphs, charts, tables, and written commentary designed to communicate information on student achievement and school characteristics. For each type of data gathered and analyzed, it is important to report both strengths and concerns (Henderson & Lezotte, 1988).

This is a bold, courageous step. It requires disclosure of information about the school and its performance that may not be congruent with the impressions held by staff and constituents. However, it is an essential step in this age of pressure for accountability. The key to acceptance is a proactive approach that symbolizes willingness to work together for improvement and to seek solutions to problems (Fraatz, 1988; Kelly, 1989; Pecheone & Shoemaker, 1984; Shannon, 1989).

Relationship to OBE and TQM. -- Local leaders of OBE are cautioned that meetings of Subject Area Committees and the Curriculum Coordinating Council should be publicized and open to all district educators. The extent of involvement of other stakeholders in the development of a document or process for reporting data on student outcomes and school characteristics is not clearly stated. Leaders of quality improvement projects stress the hands-on role of employees in collecting and interpreting data related to their work. However, the emphasis is on internal use of the data to improve the system and reduce variation in outcomes or products. This is appropriate in both the private and public sector, but public institutions have a unique need to provide information and communication to all stakeholders.

Identify Data-Based, Mission-Oriented Improvement Objectives

Using a structured group process, school staffs and involved stakeholders generate a list of "all the things anyone might say could be improved in our school." This brainstormed, inclusive listing will reflect all concerns revealed in the school status report, including survey data and items raised in the group process itself (Everson, Scollay, Fabert & Garcia, 1986; Sudlow, 1990).

The group process recommended in NCES's staff development program has been successful in encouraging participants to look at concerns from multiple perspectives, rank them in terms of the school's mission and the data reported, and focus on establishing priorities. A limited number (2-5) of areas of concern should be identified so that scarce human and material resources are not fragmented. Discussion is required to specify the desired state to be achieved in each of these areas, and specific improvement objectives are written (Henderson & Lezotte, 1988).

Relationship to OBE. -- A somewhat similar process takes place in the early phases of OBE, in which committees identify desired exit outcomes for students, and map backward from those final outcomes to more specific program outcomes, followed by course, unit and lesson outcomes becoming increasingly focused. One form of OBE, known as outcome-based decision-making, recommends 10-20 high performance unit outcomes per grade level per subject, which all students would be expected to master, coupled with additional curriculum development to challenge students who learn faster. However, organizational issues and other school characteristics are not included.

Relationship to TQM. -- As mentioned earlier, the first of the seven steps in an improvement process based on TQM principles is to determine the problem. This appears to be a parallel step, especially considering TQM's emphasis on the use of statistical data to focus discussion and more clearly define the specific aspects and factors related to a general concern about quality.

Examine Effective Curriculum and Instructional Strategies Related to Improvement Objectives

Two aspects of the NCES continuous school improvement process differentiate it from previous generic efforts to be more effective. The first, described earlier, is the use of data to supplement subjective experience as a basis for decision-making. The second, related here, is an emphasis on scholarly endeavor on the part of instructional staff (Levine & Lezotte, 1990). Traditionally, reasons for adopting new instructional strategies

and program innovations included their newness ("It's the latest thing") and the availability of funds to purchase them (Chapter 1 and 2 funds, for example).

Once again the school improvement team shares effort and responsibility with other staff members. A new set of task forces are designated to deal with each of the areas of concern and to decide how best to address the specific improvement objectives. It is essential to study and assess multiple alternatives for meeting the objectives in order to avoid premature commitment to an approach that may not produce results worthy of the energy invested in it. Task forces draw upon a variety of resources including professional literature, outside experts (intermediate service agencies, universities), and site visits in other districts. This information helps them select instructional and organizational approaches that have been shown to be effective for accomplishing the specific improvement objectives they identified (Heim, Flowers & Anderson, 1990; Lezotte & Bancroft, 1985; Taylor, 1990).

Relationship to OBE. -- The OBE approach considers improvement only from the perspective of curriculum outcomes. OBE involves the specification of outcomes (knowledge, skills or affective behaviors) to be demonstrated by students, alignment of the curriculum to ensure that specified outcomes are taught, the selection of appropriate instructional strategies and procedures (e.g., mastery learning, cooperative learning, peer tutoring, learning styles, etc.), assessing student learning, applying correctives or enrichment, and reassessing. OBE is recommended as an appropriate strategy to implement if the concerns that arise indicate a lack of alignment in the curriculum. When school improvement teams identify problems and set priorities, organizational and instructional issues other than curriculum outcomes are likely to arise for which appropriate strategies should be selected.

Relationship to TQM. -- Two parallel steps in the seven-step TQM improvement process are "Observe the current situation" and "Analyze root causes." Substeps of the former include examining the process and investigating key features of the problem.

(The SBIL program utilizes a TQM tool, the Ishikawa cause and effect [fishbone] diagram in this step.) Analyzing root causes includes developing possible explanations and verifying them with data.

Select Strategies and Develop Plan for Implementation and Monitoring

Based on the results of its study, each task force identifies 2-3 strategies to address the improvement objective for which it is responsible (Henderson & Lezotte, 1988). For each of these strategies, a detailed action plan is developed that first lists the steps to be taken, as specifically as possible. For each step, needed personnel and resources are described, a timeline is suggested, and indicators of progress are defined (eg., Murphy & Waynant, 1990).

An action plan that does not include frequent monitoring of progress toward the end goal of improved student achievement is almost doomed to failure from the outset. Measurable changes in student outcomes may be a long time in coming, and without frequent monitoring of progress, it will be difficult to maintain the momentum and motivation needed for the improvement effort (David, 1989; Dutweiler, 1988; Henderson & Lezotte, 1988; Mauriel & Lindquist, 1989; Saxl et al., 1989).

Indicators of progress, then, function both as a carrot and a stick. They make school personnel responsible for moving forward with implementation, but their greatest power lies in the energy generated when celebrations of small steps toward success take place (Deal & Peterson, 1991). For adults in a school environment, as well as for students, nothing succeeds like success, and information that expended effort is making a difference is a powerful incentive to proceed.

Selection of instructional strategies implies the need to add to teachers' repertoire of skills (Levine & Leibert, 1987). This is another point in the school improvement process in which extensive staff development may be demanded (Levine & Lezotte, 1990). The district's support in providing professionals with opportunities to "renew" and

"retool" is essential. It is for these reasons that earlier reference was made to decentralizing staff development as well as decision-making.

Relationship to OBE and TQM. -- The plan to be developed in OBE focuses on definition of student outcomes and identification of appropriate levels of mastery. Users of outcome-based decision-making recommend that students be expected to master each outcome at an 80% level. As in Effective Schools school improvement, reliance on standardized norm-referenced tests to monitor progress is discouraged. Schools and districts are encouraged to use criterion-referenced tests and to develop other forms of assessment that match the desired performance outcomes. Step Four of the TQM seven-step improvement process is "Develop the Improvement" and includes generating alternatives, selecting the improvements to be made, and planning the implementation. These are parallel tasks to those described in the Effective Schools school improvement process.

Implement Plan and Monitor Results

Having identified indicators of progress, monitoring and disseminating results is essential and provides the basis for ongoing effort and modification where needed (Buffone & Ciccoretti, 1990; Carnine, 1988; Eiseman, Fleming, & Hergert, 1989). During this implementation phase, the data gathered to monitor results help extend what may have been one-time data into trend data for future use.

Relationship to OBE and TQM. -- Outcome-based decision-making refers to the importance of a regular audit process to verify that teachers are teaching to the designated outcomes. In TQM, Step 5 of the seven-step quality improvement process is to "Verify the Results." This includes implementing the improvement at a pilot level, studying the process, and modifying the implementation plan. It is at this point that TQM has the most to offer in strengthening the Effective Schools school improvement process. The management techniques and tools can help teachers organize information about their own and their students' performance. The difficulties in synthesizing TQM and the Effective

Schools school improvement process lie in the need to translate business management language into educational terms, the need for extensive staff development to teach and coach practice of the TQM tools, and accessibility to technology which can handle the information generated. (An example of this technology is the Management Information System for Effective Schools developed at NCES.)

Refine and Renew Improvement Efforts

One of the most prominent leaders in the Effective Schools movement, Dr. Lawrence Lezotte, frequently states that "the good news about school improvement is that it can begin tomorrow. The bad news is that it is never finished." The norms of collegiality, improvement, and performance that characterize teachers in effective schools (Little, 1982) must become the prevailing norms of the school culture as continued cycles of improvement occur and overlap. Data generated to monitor progress may yield other areas of concern to be addressed in new, more ambitious improvement objectives. Goals set for accomplishment in one year may be extended over longer periods of time as more in-depth strategies for achievement are identified.

It may be necessary to review and, if necessary, realign policy at the district and school level. For example, policies may need to be changed to accommodate changes in the use of time as instructional arrangements are modified. Scheduling and grouping practices should be reviewed, as should retention and promotion policies. As school improvement occurs and schools become more effective in their missions, they should not be stymied by outmoded district policies that impede school improvement.

Relationship to OBE and TQM. -- The literature on OBE does not highlight a cyclical aspect of the process. Most districts address curriculum change on a 5-year or 7-year rotating basis by content area. Step 6 of the TQM improvement process is "Standardize the Improvements." This terminology is very familiar to Effective Schools facilitators who seek to move improvement from initiation to implementation to institutionalization. The TQM step includes establishing control items and methods,

standardizing key items, implementing the improvement at full scale (as opposed to pilot level) and modifying and ensuring the effectiveness of improvements.

The final step in the TQM process, however, is to "Conclude the Project" after checking that objectives have been met. In this case, TQM's use of the term "project" is synonymous with a particular improvement objective and its related strategies. As in the Effective Schools school improvement process, decisions are made about selecting another area of concern to address. The terminology of "concluding" and "closing" is unfortunate, in light of Deming's very forceful insistence that improvement be continuous as a necessity of survival for individuals and organizations.

## Possibilities and Precautions

The Effective Schools process as embodied in the SBIL program is not a panacea. In common with other organizational processes, it has clear limitations and the results obtained will depend upon the commitment to improvement and the motivation and perseverance of the practitioners who use the process. Thus, it is useful to consider what the Effective Schools school improvement process (ES/SIP) embodied in the SBIL program is and what it is not.

1. ES/SIP is a set of activities commonly used in schools and school districts that have improved their effectiveness as reflected in higher achievement on the part of all students. ES/SIP is not a hard-and-fast recipe that guarantees success; it requires hard work and persistent effort.
2. ES/SIP is a multi-year cyclical process with more than one entry point. The entry point will depend on the school's status; for example, some schools will start by clarifying their mission, some start with a realization that they need to make more effective use of data, and others might start with a desire to decentralize decisions. ES/SIP is a continuous, ongoing process in that when one goal is achieved another is established. ES/SIP is not a linear process with a single starting point and ending point; it is not a one-year process.

3. ES/SIP is a process that emphasizes collaboration, cooperation, and team work with a strong preference for vertical teams composed of teachers, administrators, parents, community members, a central office representative, and students. It emphasizes the school as a learning community in which all stakeholders have a role to play. ES/SIP rejects a unilateral, top-down approach in favor of a team approach designed to remove barriers to success.
4. ES/SIP can increase the likelihood of success in school reform and restructuring efforts but it can not guarantee success. Among the key factors that will determine whether or not ES/SIP is successful are the quality of local leadership, the culture of the school vis-a-vis the attitude toward the need for improvement, and the involvement of faculty, staff, community members, and students as full partners in the effort.
5. ES/SIP is a process designed to facilitate systemic change that can guide the selection of strategies and procedures by providing a focus for the review, analysis, selection, and evaluation of programs or innovations that promise to address identified needs. ES/SIP is not a panacea; it is not a "Swiss Army knife" for educational change and reform that can solve all problems and ills.

In summary, the Effective Schools process provides a generic framework for school change. The NCES has engaged in research and development over the past five years to translate the knowledge gained from research on effective schools, educational change, policy implementation, organizational behavior, and adult learning into a staff development program that empowers teachers, administrators, parents, and community members who are committed to make schools more effective. The SBIL program uses the Effective Schools process to develop the vision as well as the decision-making, conflict-resolving, and leadership skills needed by members of school improvement teams. It is evident that a high percentage of the teachers and administrators currently working in our schools will still be there in the year 2000 and beyond. Consequently, it is

imperative that we help them become more effective in their work by drawing on knowledge of organizational theory, organizational development, and school change processes to help them ensure that their students will meet or exceed high standards in all areas of learning, and that teachers and administrators will continually strive to improve the quality of the education their school provides students.

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